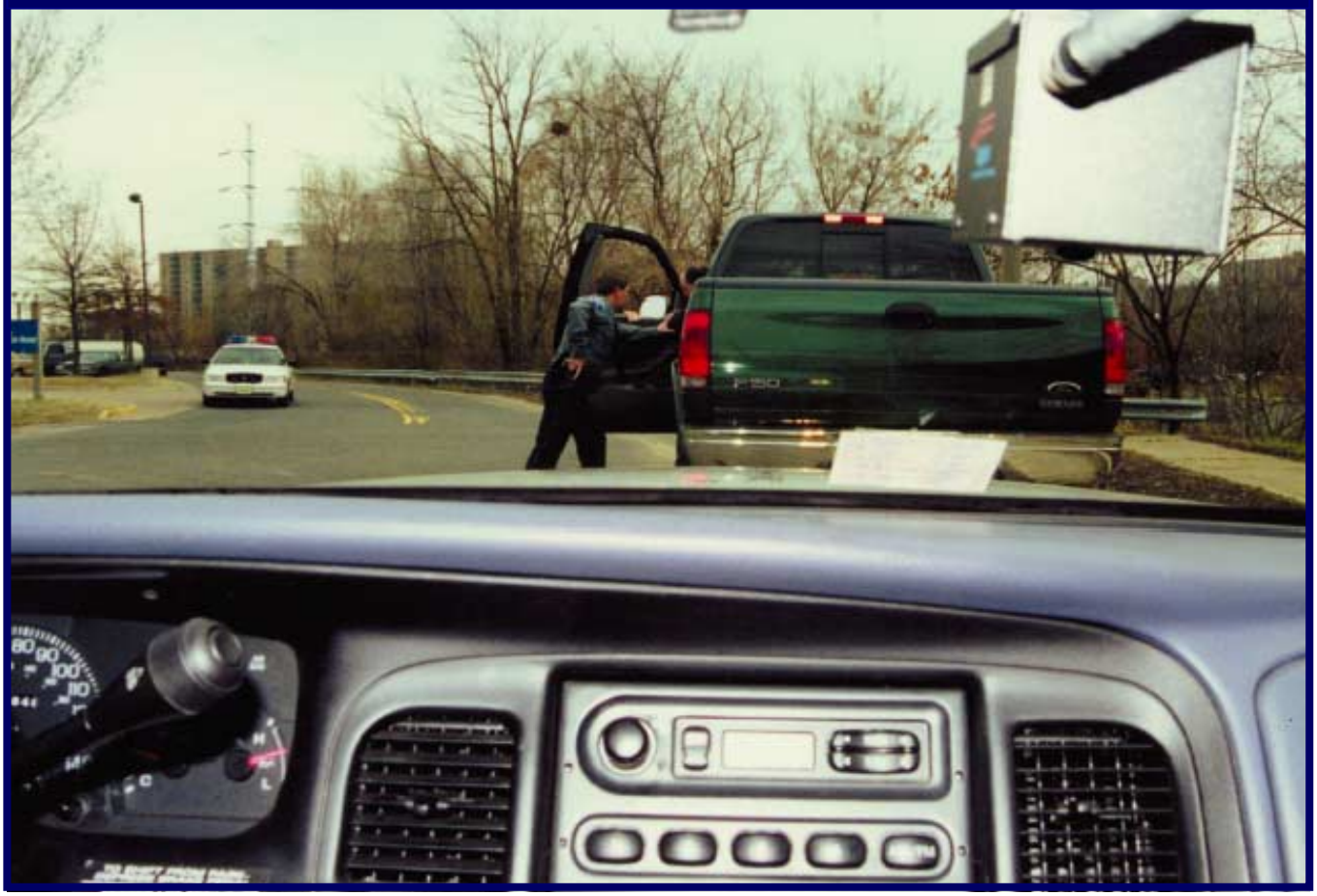
International Association of Chiefs of Police

Cutting Edge of Technology

Executive Brief
March 2001

The Use of CCTV/Video Cameras in Law Enforcement



IACP Survey Results

Inside . . . . an overview of key considerations surrounding the use of CCTV in law enforcement.

Acknowledgments:

The IACP wishes to thank the over 200 law enforcement agencies who gave their time and responded to our survey. The information provided by these agencies serves as the foundation of this publication. Special thanks to the Alexandria Police Department (VA), and to Lieutenant John Crawford and Officer Steve Brown, who so willingly gave their time, and their likeness, to the cover of this executive brief.

Author: **Laura J. Nichols**
Project Support: **Miguel Becerril**

For more information, contact:
Laura J. Nichols (800) THE-IACP or (703) 836-6767, nicholsl@theiacp.org

We would love to hear from you; let us know what you think….
Please contact us with your thoughts, ideas and suggestions about future brief topics.

This brief is an intermittent publication of the International Association of Chiefs of Police, in collaboration with the National Institute of Justice, Office of Science & Technology, to inform and educate law enforcement leaders about current and future technology trends.

The IACP extends thanks to five law enforcement leaders who reviewed and provided their input on this brief:

Edward A. Flynn, Chief of Police, Arlington County Police Department, Arlington, VA, IACP Education & Training Committee Member
Terrance W. Gainer, Executive Assistant Chief of Police, Metropolitan Police Department, Washington, DC
Charles S. Heal, Captain, Los Angeles County Sheriff's Department, Los Angeles, CA
Charles E. Samarra, Chief of Police, Alexandria Police Department, Alexandria, VA
Tom Steele, Chief Information Officer, Maryland State Police, Pikesville, MD, Chairman, IACP Law Enforcement Information Management Section

Introduction

The IACP surveyed law enforcement agencies across the nation to ascertain current applications of CCTV / video cameras and assess its impact in the field. Results of the survey are presented to police leaders to

- enable law enforcement agencies to share information on CCTV use;
- assist the field in understanding best practices for CCTV / video;
- determine how CCTV / video usage can be employed by local law enforcement agencies in the future; and
- focus future research efforts.

Law enforcement applications of video technology have grown substantially during the past decade. The advent of the videotape camera in the early 1960s and the vast improvements made in the field since that time have given rise to any number of new applications of closed-circuit television (CCTV) being utilized by law enforcement. Many agencies in the United States and other nations are applying CCTV technology to police operations including equipping vehicles with video recorders, monitoring public areas, and recording booking and other police procedures. The Bureau of Justice Statistics reported the use of CCTV by 700 agencies with over 100 sworn officers in three specific applications, as illustrated in Table 1 (below).[1] Nearly half of these agencies use CCTV in these applications and may also employ it in other applications.

Table 1

Agency Type	No. of Agencies	In-Car Video	Surveillance (Fixed-Site)	Surveillance (Mobile)
State	49	73%	41%	35%
Local	651	46%	48%	47%
Totals	700	48%	47%	47%

It is no exaggeration to conclude that CCTV technology has had a significant impact on law enforcement. Agencies across the country are in a position to benefit from the experience and lessons of others over the course of the last two decades. This executive brief presents the uses and interests of over 200 responding law enforcement agencies using CCTV today. It also highlights some of the practical considerations and policy issues police executives must consider when employing this technology.

CCTV at Work!

Alexandria, VA - March 2001: Alexandria Police Department begins pilot CCTV camera program to help officers document erratic driving and other behavior in DWI cases. The department anticipates videotaped evidence will clear up discrepancies in courtrooms and facilitate prosecution.

[1] *Law Enforcement Management and Administrative Statistics, 1997: Data for Individual State and Local Agencies with 100 or More Officers.* U.S. Department of Justice. Bureau of Justice Statistics. April 1999, NCJ 171681.

Current CCTV Applications in Law Enforcement

Eighty percent of agencies that responded to the IACP survey utilize CCTV. Half of the remaining 20 percent anticipate using it in the future. Agencies were asked to rate the effectiveness of 15 CCTV applications, even if this application was not being employed in their jurisdiction. The rating was based on a scale of 1 to 5, 1 being least effective and 5 being most effective. The top three uses are illustrated in Figure 1 (below):

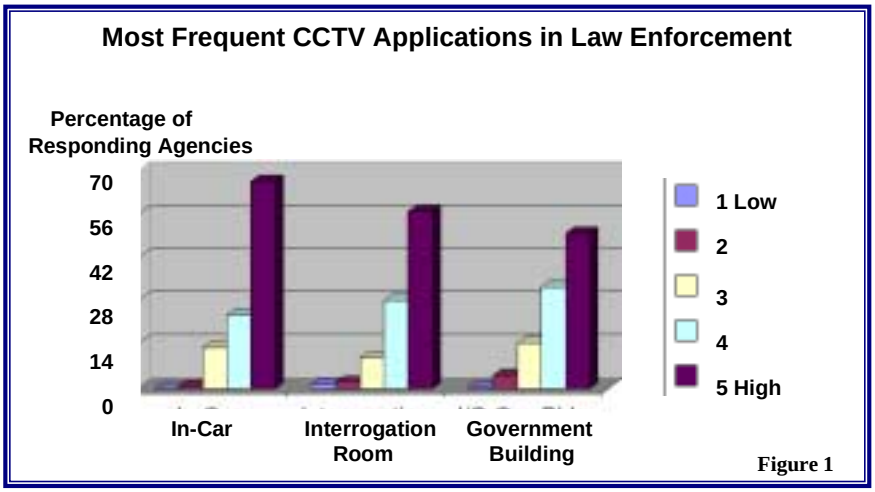


Figure 1

The remaining twelve uses for CCTV are ranked by frequency of use in Figure 2 (below):

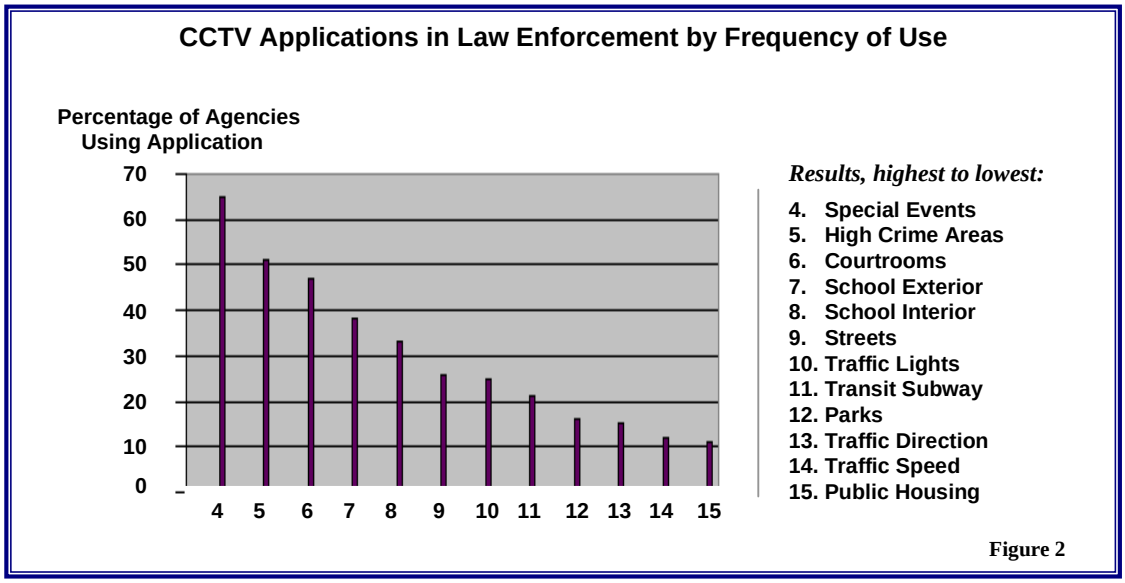


Figure 2

Results reflect a general consensus that CCTV applications have a high degree of acceptance and use particularly in police vehicles, in interrogation proceedings, inside and outside

CCTV Use in the United Kingdom

According to David Banser of *Covert Action Quarterly*, over 150,000 closed-circuit television cameras monitor public areas in Britain. Equipped with a powerful zoom lens, each camera can read the wording on a cigarette packet at 100 yards and can track individuals wherever they go—even into buildings. Trained citizens monitor many of the cameras in Britain and notify police when they observe illegal activity. Reviews on the use of CCTV are mixed. Proponents acknowledge the effectiveness of CCTV in recording incidents, reducing court time (due to guilty pleas), and saving money. Opponents voice concerns over privacy and the use of these cameras and the videotape for other purposes. Nevertheless, the use of CCTV by law enforcement agencies, governments, and businesses is increasing, both in Europe and in the United States.

SIDE LINES

government buildings, and at special events. Of those who responded when asked whether they found CCTV useful in three broad areas:

- 63 percent said it was useful for investigative assistance.
- 54 percent found it useful for evidence gathering.
- 20 percent found it useful for crime reduction.

Impact of CCTV

An important element in any program is the ability to assess its influence and whether results and outcomes measure up to expectations. Agencies were asked if they had measurement systems to evaluate CCTV's effectiveness in reducing crime. Ninety-six percent of respondents do not incorporate measurement systems of any kind. Of the eight agencies using formal measurement systems, three said CCTV had a great effect on crime, four said the effect was moderate, and one said it had a marginal effect on crime.

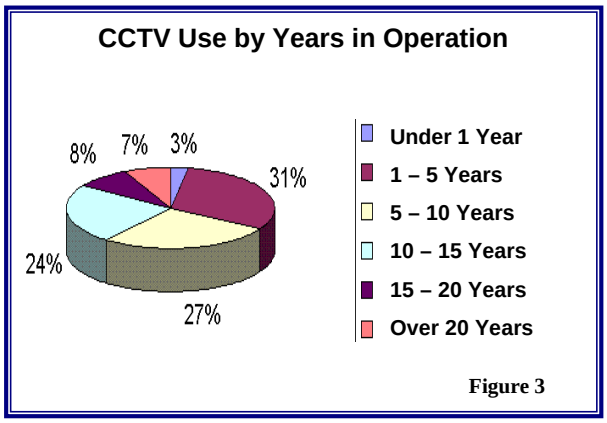


Figure 3

Sixty-six percent of respondents have utilized CCTV for more than five years. Despite the lack of measurement systems, when asked about the effectiveness of CCTV, the overall response indicates that there have been marked improvements in police operations:

- fewer frivolous lawsuits because defendants are unable to contradict taped evidence
- fewer officers necessary to conduct surveillance of public areas

- protection against claims of abuse or coercion during interrogation procedures
- reduced court time for officers because defendants are unwilling to dispute charges charges when faced with taped evidence

CCTV becomes cost effective as its use increases; the videotape cost offsets litigation and settlement costs. Some departments that have equipped patrol cars with laptops have begun to utilize email to document a record of videotaped events, corroborating the video evidence. This is especially useful in a case where a time lapse has resulted in the destruction of videotape evidence.

Implementation Considerations

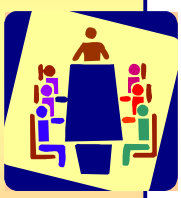
There are several factors to consider when deciding whether and how CCTV cameras will be employed in a jurisdiction. First, why is CCTV being considered and for what purpose might it be utilized? Second, what results and/or benefits are anticipated? Third, what social and practical considerations must be examined? Social considerations include citizens' privacy and perceived civil rights violations, and the effect CCTV will have on the population (e.g., reduced crime). Practical concerns include initial and long-term funding, operations, and training.

Perhaps the most pertinent concern when utilizing or expanding CCTV is the debate regarding legal uses and violations of individual privacy rights. While many jurisdictions welcome CCTV use, others prohibit some or all applications. Our survey indicates that many respondents use CCTV technology in the public arena (see Figures 1 and 2, page 3). According to James Falk Sr., a constitutional lawyer and chairman of the U.S. Department of Justice's National Institute of Justice Liability Panel, "Cameras in public places are legal; there is no expectation of privacy in public places."[2] In general, 95 percent of survey respondents indicated they utilize CCTV in areas where expectations of privacy do not exist.

When asked whether CCTV use would heighten potential liability due to perceived infringement on citizen rights and how the benefits of CCTV and citizen rights should be

Implementation Planning Steps

- ❍ **Identify the need for CCTV use.**
- ❍ **Involve stakeholders, including law enforcement, government officials, and the public.**
- ❍ **Set criteria for camera placement, use, operators, and success.**
- ❍ **Anticipate goals and benefits.**
- ❍ **Determine equipment requirements - type of CCTV.**
- ❍ **Assess costs and secure funding.**
- ❍ **Finalize operational details (e.g., tape maintenance, storage).**
- ❍ **Create an implementation plan.**
- ❍ **Develop training program - address use, operations, etc.**
- ❍ **Ensure positive community and media relations.**



SIDE LINES

[2] American Bar Association Annual Convention. Toronto, Ontario, Canada. July 30, 1998.

CCTV Use & Civil Rights

Public concerns about CCTV often revolve around the alleged violation of civil liberties and rights of privacy. Many civil rights groups oppose the use of CCTV on the grounds that it violates both the Fourth Amendment right against unreasonable search and seizure and the right to personal privacy. There are also fears that the film might be used for purposes other than those originally intended. Civil rights groups, such as the American Civil Liberties Union (ACLU), have proposed moratoriums on CCTV use until standards and protocols are developed that establish reasonable parameters for its use. Courts have consistently found that a reasonable expectation of privacy does not apply in public areas.

SIDE LINES

balanced, participants offered the following recommendations:

- Limit overall CCTV use and use it under controlled parameters.
- Use it only under conditions where there is no expectation of privacy.
- Notify citizens when they are under surveillance or being recorded.

Practical implementation considerations are as important as the social ones. Implementing and maintaining CCTV cameras requires planning, funding, and the support of law enforcement officials and citizens.[3]

Operational Issues

Approach

The chosen CCTV application will affect the approach taken to implement it. For example, careful planning and training is required when using CCTV in interrogation proceedings, where the tapes may be used as evidence for prosecution. The local prosecutor's office should be briefed on the use of cameras and can offer advice to increase the chances of successful prosecution with videotaped evidence. If CCTV will be used to monitor public places, consideration should be given to notifying the public and determining how often and when tapes will be reviewed or monitored. Camera monitors should be trained to look for specific types of behaviors or actions and know when to notify police. Each CCTV application should be regarded as a different tool and the approach to using it should be well planned.

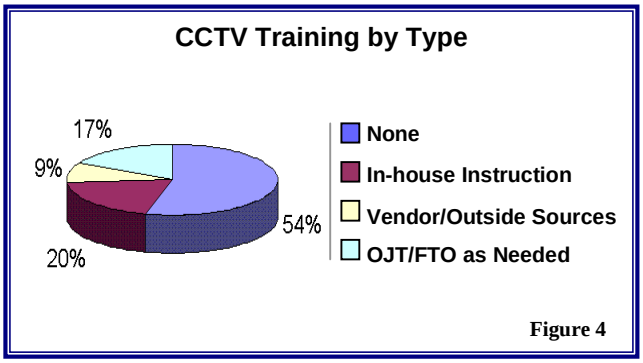


Figure 4

[3] *Resources are available to facilitate planning efforts*, including IACP's Information Integration Planning Model - contact Laura J. Nichols at (800) THE IACP and the Justice Technology Information Network http://www.nlectc.org.

Training

While agencies using CCTV strive to comply with state and local laws, they do not always provide those operating it with training in CCTV use and the liabilities associated with it. Figure 4 shows that fifty-four percent of respondent agencies provided no formal training to those operating it. This lack of training in a number of areas, including the purposes and public perceptions of its use, industry trends, evaluation, and operations is of concern. Appropriate training is crucial to ensure the proper operation and performance of CCTV equipment, especially when tapes may be used as evidence for prosecution.

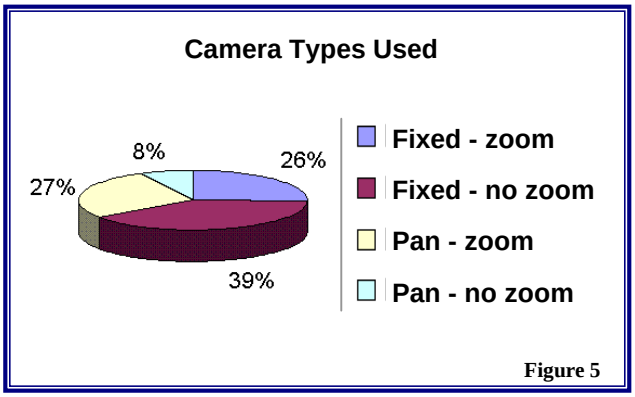


Figure 5

Operations

Beyond approach and training are decisions regarding the type of equipment used, who will operate it, and what policies will be set regarding tape storage and handling. According to some legal experts, many questions surround the storage and maintenance of information, including whether tapes are reused and how soon they are erased. Eighty-two

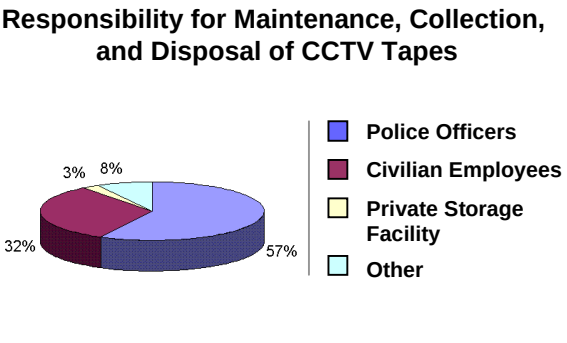


Figure 6

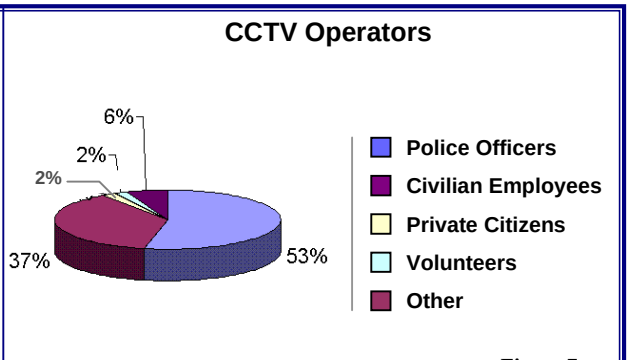


Figure 7

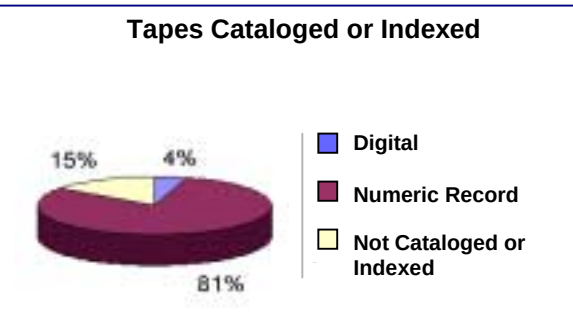


Figure 8

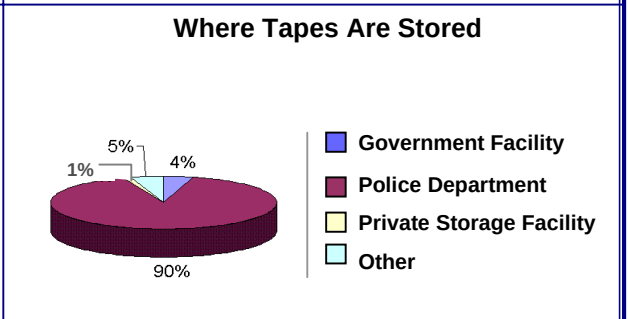


Figure 9

percent of agencies utilize both real-time and recorded images while only 18 percent use one or the other (real-time, 10 percent,and recorded, 8 percent). Figures 6 through 11 (below) portray survey respondents' answers to questions regarding CCTV operations and tape handling.

Police officers using CCTV have dual roles in many jurisdictions. They operate cameras and are responsible for maintaining, collecting, storing, and disposing of CCTV tapes. Eighty-one percent of police departments use numeric records to store and track videotapes. Fifty-seven percent record over tapes one to ten times before discarding them, and 71 percent store tapes for more than 30 days.

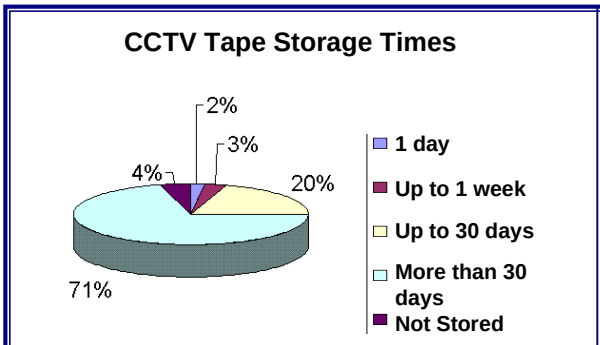


Figure 10

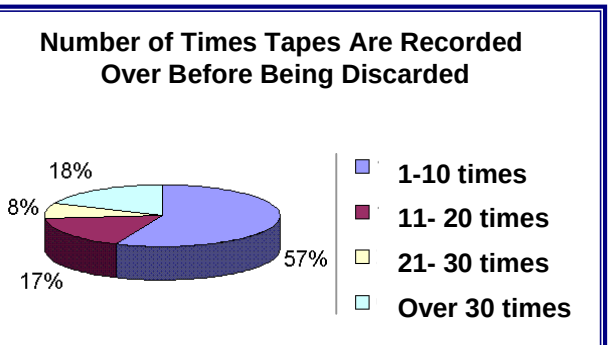


Figure 11

Model Policies and Guidelines for CCTV

Though CCTV was originally installed to deter burglary and theft, and to document interrogations, its use in monitoring and curtailing irregular behavior is on the rise.[4] Yet even with this growth in applications, 53 percent of survey respondent agencies indicated they had no formal written guidelines or policies to govern the use of CCTV. Many expressed the need for model policies and guidelines to assist jurisdictions in their use of CCTV.

To meet this need, several agencies have designed guidelines to assist agencies when implementing CCTV:

- The IACP National Law Enforcement Policy Center published a model policy titled Mobile Video Recording Equipment in October 1992 and a concepts and issues paper by the same title in May 1993. In addition, a policy review paper, *Videotaping Interrogations and Confessions*, was published in fall 1998. This paper explores many of the key issues surrounding the use of videotape during interrogations and confessions.

[4] Privacy International, CCTV Frequently Asked Questions, Internet Site, August 25, 2000
[5] CCTV for Public Safety and Community Policing Summit, April 8-9, 1999, Information Kit

- The IACP, in collaboration with the Security Industry Association (SIA), hosted a two-day summit called *CCTV for Public Safety and Community Policing* in April 1999. Guidelines relating to responsible use of CCTV in public safety and community policing applications were proposed. These guidelines were circulated to law enforcement agencies and CCTV manufacturers across the country for review and comments.[5]

The SIA guidelines highlighted three distinct points pertaining to use:

- Each application/program should, at a minimum, seek to involve the community or group where the technology is to be installed, the law enforcement agency implementing the program, and the local government. The intent is to garner support.

- There must be emphasis on training and education. CCTV operators should be trained in appropriate camera use; law enforcement should be trained and educated on establishing a responsible CCTV program; and the community must be educated regarding the program's purpose and scope.

- The psychological response to CCTV use in the community should be considered prior to the installation of a system. Community resistance towards law enforcement or local government may be traced to law enforcement's failure to understand or articulate what the cameras may mean to the public. A program oversight body made up of law enforcement and community representatives would assist in the transition to CCTV use.

The IACP Private Sector Liaison Committee and Security Industry Association published final CCTV guidelines on January 1, 2000.[6]

CCTV & Legal Concerns

As the survey data reflects, the people operating and maintaining CCTV cameras in many jurisdictions may not be the police. This may raise questions about the handling of evidence. Was the chain of custody of the evidence maintained? Could the tape have been tampered with, edited, or taken home by anyone along the evidence chain? Involvement of non-police personnel in maintaining and operating the CCTV system could compromise the effectiveness of the evidence in court. Implementation of strict policies and procedures will often mitigate these concerns.

CCTV at Work!

Stevenage, UK - June 1998: CCTV system helps foil terrorist bomb attack on neighborhood café. Officers were dispatched after a control room operator monitoring the cameras observed suspicious behavior. Officers found several gas-filled bottles ready to be lit and thrown into the café; four men were arrested at the scene and later convicted of conspiracy to commit arson.

[6] Copies may be obtained at http://www.theiacp.org/div_sec_com/Committee/pslc.htm

As illustrated in Table 1 on page 3, survey respondents most frequently use CCTV cameras in patrol cars. Many line officers support the use of CCTV cameras in patrol vehicles because of the protection it can afford them from frivolous lawsuits. Other incentives include the increased safety of patrol officers and the ability to record events during a traffic stop. Procedures must be in place, however, to make the cataloging and handling of videotapes a quick and simple process.

Police Cars & Camera Use

Jurisdictions use in-car cameras to:

- **document incident activity (e.g., DWI Tests)**
- **increase likelihood of successful prosecution**
- **increase the safety of the officer**
- **decrease frivolous complaints**
- **record suspect behavior**
- **record and track initial violation/reason for stop**

SIDE LINES

The use of a "dummy camera," a camera shell with no inner workings placed in a location to imply monitoring, also has potential legal implications for jurisdictions. Six percent of respondent agencies reported that they now use dummy cameras in five main areas: traffic intersections, public parks, public and school buses, high crime areas, and building exteriors. Many police departments view dummy cameras as a viable and cost-effective method to deter criminal activity. Advocates of CCTV have expressed concern that the dummy cameras may give citizens a false sense of security about a public area. Further, a law enforcement agency could be seen as having misled its citizens if one or more citizens are victimized in an area where they believed they were safe because of the presence of CCTV camera.

CCTV Technology

Current Technology

One hundred seventeen agencies indicated they had not experienced any problems with CCTV technology. Seven agencies reported these problems, ranked from highest to lowest:

- Lack of enthusiasm for the use of CCTV by police officers, who may be reluctant to be taped while performing their duties
- Maintenance of the equipment
- Poor design, not adaptable to the operating environment
- Poor tape quality that makes identification difficult
- Lack of effective zoom capabilities
- Excessive time required to conduct evaluations of recorded material
- Difficulty in concealing CCTV equipment
- Equipment not rugged enough for the conditions in which it has to operate
- High cost of purchasing and upgrading equipment
- Limited area the cameras cover when in a fixed state

Facial Recognition Technology at the Super Bowl

Security at the 2001 Super Bowl was enhanced by the use of facial recognition technology, one of the latest uses of cameras that employs digital imaging to compare the scanned faces in a crowd with digital portraits of suspected terrorists and known criminals. The technology uses 128 facial characteristics, such as the angle of a cheekbone or the width of a nose, to identify potential matches to suspected terrorists; police confirm final matches. This surveillance technique was used by law enforcement to identify and stop any known terrorists and help ensure public safety during the Super Bowl. Reaction by fans was split: some were pleased at the heightened security, others were upset about the perceived violation of privacy. This is one example of the innovative, yet controversial, uses of technology in law enforcement. Opponents have voiced concerns regarding the involuntary capture of citizens photographs, while proponents have pointed out the increased safety now available to the public when terrorists can be identified before they carry out an act that may endanger the lives of thousands. Law enforcement and justice officials should carefully consider both public concerns and the positive aspects of this technology when deciding on its use.

SIDE LINES

Technology & Training Improvements

When asked what improvements would facilitate an increase in the use of CCTV, survey respondents answered as follows:

- Lower operations and procurement costs 41%
- Improved recording capabilities 24%
- Miniaturization of existing equipment 21%
- Improved training 14%

The market for CCTV in public and private sector applications has realized only about 10 percent of its potential, estimates Michael Shanahan, co-chairman of IACP's Private Sector Liaison Committee and a retired University of Washington police chief. "The market opportunity is vast. We're in the infancy of the use of this technology on a broad basis."[7] The FBI has developed remote-control miniaturized CCTV units it can put in a lamp, clock, radio, duffel bag, purse, picture frame, or other object.[8]

Future Technology

The use of CCTV technology will continue to expand if law enforcement agencies continue to believe that it enhances law enforcement efforts. Overall, survey respondents rated several emerging CCTV features, such as digital video, event detection, facial recognition, image enhancement, motion detection, and rapid search as potentially effective technology, as illustrated in Figure 12 (below).

[7] Mobile Video Recording Equipment, Concepts and Issues Paper, IACP National Law Enforcement Policy Center, May 1993.
[8] Big Brother Goes High Tech. David Banser, CovertAction Quarterly, Spring 1996.

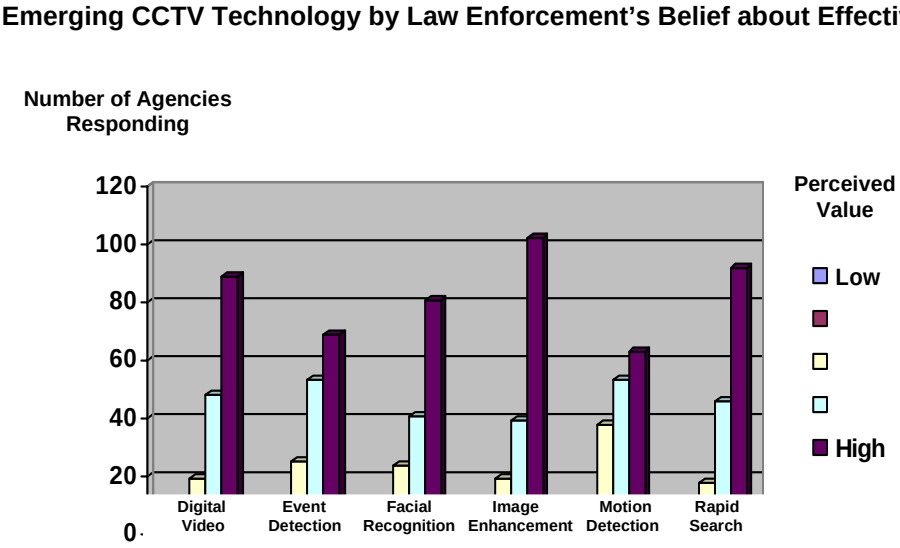


Figure 12

The Future of CCTV

More cities and counties throughout the U.S. are considering using closed circuit television to give troubled downtown business districts new life, help public housing communities reduce destructive criminal elements, increase safety in public parks, monitor traffic congestion, and catch red-light violators. The IACP survey confirms that law enforcement perceives CCTV to be effective in selected applications. Public acceptance will likely play a role in determining the level of CCTV use. Initiatives have succeeded thus far where there is no expectation privacy or where it has been voluntarily surrendered (e.g., airports).

Taking into account the reported success of CCTV thus far and the avoidance of infringing on citizens' privacy, police agencies and city and county governments will likely continue to explore what CCTV can do to increase the effectiveness of law enforcement. For those agencies considering the adoption of CCTV, our survey clarifies the need to develop a thorough implementation plan that addresses such issues as those listed on page 5. Addressing these issues in advance will facilitate CCTV implementation.

The survey concluded by asking agencies to indicate what CCTV support they would like from the IACP and the National Institute of Justice. From IACP they seek a model

CCTV at Work!

Garrison, TX - January 1991: CCTV in-car videotape provides the clue that leads to the identification and conviction of the killers of Constable Darryl Lunsford, a law enforcement officer who employed his own video technology in his cruiser while on routine patrol.

policy that covers all aspects of the use and maintenance of CCTV, periodic updates on advancements in CCTV, and technical assistance and training in the use of CCTV. From NIJ, they request more funding, technical assistance in forensic analysis and analytical trends associated with CCTV, and technology updates. Cost appears to be the primary obstacle to wider CCTV implementation and use.

Coming Soon!

The IACP National Law Enforcement Policy Center will feature this topic in its upcoming newsletter, *Policy Review*.

What can CCTV do for me?

Law enforcement agencies across the nation employ CCTV in a variety of ways to serve the following purposes:

- **Strengthen prosecution by introducing video evidence in court**
- **Reduce time in court for officers, increase productivity and realize financial savings**
- **Protect police officers against claims of police misconduct resulting in a reduction in liability**
- **Investigate crimes (e.g., felony stops, pursuits)**
- **Train officers using recordings**
- **Record officers' thoughts, observations**
- **Ensure and prove police procedures were followed during confessions and interrogations**

SIDE LINES

Survey Profile

The IACP CCTV survey consisted of 27 questions in five categories: 1) agency and respondent background, 2) CCTV applications, 3) procedural/jurisdictional issues, 4) technical issues, and 5) conclusions and suggestions. The survey was conducted between March 31 and July 1, 2000. Surveys were mailed to 971 law enforcement agencies across the nation. Two hundred thirty-one surveys were sent to target recipients: major city police departments (52), IACP Technology Committee members (7), and IACP Law Enforcement Information Management Section members (172). The remaining surveys were sent to a sample of IACP members in 740 police departments randomly selected based upon population served:

Table 2

Population	Number of Surveys	Percentage of Surveys
2,501 – 9,999	76	10%
10,000 – 49,999	177	23%
50,000 – 99,999	177	23%
100,000 – 249,999	177	23%
250,000 – 499,999	162	21%

Two hundred and seven agencies (21 percent) responded to the IACP survey, as depicted in Figures 13 and 14 by the number of sworn officers and jurisdiction population, respectively.

Participating Agencies by Population Served

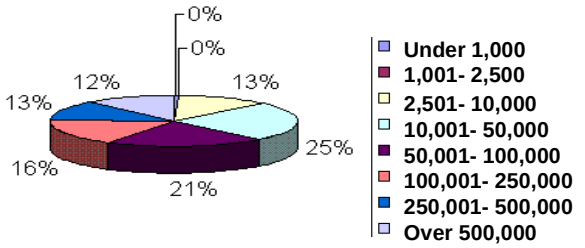


Figure 13

Participating Agencies by Number of Sworn Officers

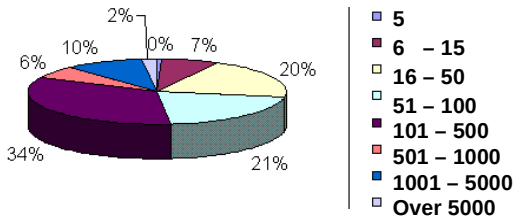


Figure 14

CCTV Resources

***Video Surveillance Equipment Selection and Application Guide*. NIJ Guide 201-99. National Institute of Justice. October 1999**

***A Watching Brief: A Code of Practice for CCTV*. www.lgiu.org.**

***Security Industry Association's Report on CCTV vs. Privacy.* Security Industry Association. August 1998.**

***Facial Recognition Vendor Test 2000.* Department of Defense Counterdrug Technology Development Office. Facial Recognition Projects. www.dodcounterdrug.com/facialrecognition.**

JOIN IACP!

MEMBERSHIP PRIVILEGES

- Substantial discounts on conference registration and training programs, linkage to other IACP resources with a membership of over 19,000:

Best Practice Guides - No Cost Technical Assistance - IACP Web
IACP Net - Police Chief Magazine - Technology Clearinghouse
Training Keys - Model Policies

- ***Regional Resources*** - Links to State Associations, Mentors
- ***National Resources*** - Links to Grants and Programs for all departments

IACP HISTORY

The IACP is a not-for-profit organization of approximately 19,000 members from the world's law enforcement community. In operation for over a century, the association has as its mission to lead and support the efforts of police administrators around the world in advancing the science and art of police services; to enhance cooperation among all police administrators; to bring about the best possible recruitment and training of qualified persons into the police profession while adhering to the highest professional standards of conduct; and to provide quality products and services to membership.

IACP Technology Focused Initiatives

Projects	Ongoing Information Transfers	Structured Committees	External Activities
Cutting Edge of Technology	Technology Center & Technical Assistance Program	Technology Coordination Panel	Global Criminal Justice Information Network
Internal Affairs Software Development	Law Enforcement Information Management Section	Criminal Justice Information Sharing	NIBRS Steering Committee
Use of Force Software Development	Technology Clearinghouse	Communications & Technology	FBI Advisory Policy Board
Statewide Information Sharing	IACP Net		

The IACP gratefully acknowledges the support of the
National Institute of Justice, Office of Science & Technology, and Chris Miles, Senior Program Manager and grant monitor.

This executive brief was supported under Award number 1999-LT-VX-K004 from the Office of Justice Programs, National Institute of Justice, Department of Justice. Points of view in this document are those of the author(s) and do not necessarily represent the official position of the U.S. Department of Justice.